SOME OBSERVATIONS ON PHARMACOLITE

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During an identification of specimens in the Royal Ontario Museum collection by *x*-ray diffraction, a number of powder patterns were taken of material labelled as pharmacolite ($CaHAsO_4.2H_2O$). Some of the patterns however, showed no similarity to the data given by Traill & Sabina (1960), but several were similar to that of brushite ($CaHPO_4.2H_2O$), which is isostructural to pharmacolite. Qualitative *x*-ray spectrographic analysis of one such sample gave calcium and arsenic as the major constituents. The analysis and similarity of the powder pattern with brushite therefore indicated the material to be pharmacolite.

Towards the end of this investigation, a paper by Pierrot (1964) on natural and artificial calcium arsenates was received. This paper gives *x*-ray powder data for pharmacolite which are identical to those obtained in this study. Comparison of the data given by Traill & Sabina (1960) with other arsenates shows that their data agree with the more complete data published by Pierrot (1961, 1964) for picropharmacolite.

A study of other calcium and magnesium arsenate specimens in the Royal Ontario Museum collection disclosed several discrepancies in the original labels. Table 1 summarizes the results of this study. It is interesting to note that the new minerals sainfeldite (Pierrot, 1964) and weilite (Herpin & Pierrot, 1963) were identified on a specimen which had been obtained by the Royal Ontario Museum in 1913.

Two other specimens labelled "pharmacolite" (M 13296, M 23572) from Neurode, Glatz, Silesia obtained in 1923 and 1960 respectively, gave identical powder patterns which, as yet, have not been identified.

The result of this study has shown that it is possible other collections may also profit from an *x*-ray examination of similar specimens.

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TABLE 1. RESULTS OF IDENTIFICATION

Original label and R.O.M. Number	Determinations	Locality	Date of Acquisition
Wapplerite and picropharmacolite E 3756	Hoernesite and picropharmacolite	Freiberg, Saxony, Germany	1912
Haidingerite with pharmacolite M 6830	Picropharmacolite with pharmacolite	Hofmangang, Gottesgob Bohemia, Czechoslovakia (Now Bozi Dar)	1913
Pharmacolite M 6831	Picropharmacolite and erythrite	Bieber Hesse, Germany	1913
Wapplerite and pharmacolite M 6836	Sainfeldite, weilite pharmacolite, picropharmacolite and erythrite	Bieber Hesse, Germany	1913
Hoernesite M 13690	Picropharmacolite	Joachimsthal, Bohemia, Czechoslovakia	1924
Pharmacolite M 23588	Pharmacolite	Ste. Marie Aux Mines, Alsace, France	1960
Pharmacolite M 23711	Pharmacolite and picropharmacolite	Gobes Gottes, Haut Rhine, France	1960
Picropharmacolite 23724	Picropharmacolite pharmacolite and arsenolite	Gobes Gottes, Haut Rhine, France	1960
Roesslerite on orpiment with realgar M 26067 M 26068	Hoernesite on orpiment with realgar	White Caps Mine, Manhattan Nye Co., Nevada	1964
Pharmacolite M 26164	Picropharmacolite pharmacolite and erythrite	Anton Mine, Heubachtal, Schwarzwald, Germany	1964
Pharmacolite M 26371	Weilite with pharmacolite	Wittichen, Baden, Germany	1964

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A NOTE ON THE TEXTURE OF PYRRHOTITE IN SOME ROCKS OF THE MUSKOX INTRUSION

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The Muskox intrusion is a layered mafic-ultramafic complex which occurs in the northwestern part of the Canadian Shield (Smith, 1962). A